# Meeting the Challenge...

*continued from front*

"The plans don't have much impact if they just sit on a shelf," said District Water Supply Department Director Carlyn Kowalsky. "That's why our Governing Board has identified implementation of water supply plan recommendations as a strategic priority."

One approach for effectively implementing water supply plan recommendations is the District's regulatory program. Water Use Permits ensure that proposed uses are reasonable-beneficial, will not interfere with any current existing legal users and are consistent with the public interest. District staff works closely with permit applicants and all interested parties to ensure that proposed water uses do not conflict with environmental resources.

A comprehensive water conservation program is another avenue for implementing long-term strategies to diversify sources and decrease demands. To accomplish this, the District provides: technical assistance to utilities; funding for alternative water supply and conservation incentives; water reuse program support; education about water-saving landscaping principles; and mobile irrigation laboratories that analyze and recommend improvements for urban and agricultural users.

District grants are available to public and private water providers for the construction of facilities that produce alternative water supplies such as reverse osmosis treatment of saline water, aquifer storage and recovery and the reuse of reclaimed water. Another grants program focuses on technology-based, efficiency improvements that can produce immediate water savings like the installation of low-flow showerheads or other water-saving devices.

"Many water utilities and water users are already implementing long-term, diversified water supply solutions and we commend them for their efforts," said Kowalsky. "As we continue to work together to update our plans and to further implement recommendations, we will be better positioned to tackle the remaining water supply challenges facing our region."

*Available stormwater will be collected from Shingle Creek (above) and added to the Tohopekaliga Water Authority of Osceola County's reclaimed water system, creating an innovative alternative water supply.*

■ **The average Floridian household uses 175 gallons of water per day (65 gallons more than the U.S. per capita average).**

■ **District users of reclaimed water include over 60,000 residences, 149 golf courses, 75 parks and 24 schools.**

■ **For water conservation tips and additional information about the Alternative Water Supply Grant Program and other water conservation funding programs, visit *www.sfwmd.gov* and click on the "Info & Education" bar.**

# Grant Program Helps Build Innovative AWS Projects

***Since the program's inception in 1995, the South Florida Water Management District's Alternative Water Supply (AWS) Grant Program has awarded a total of approximately $25 million to help fund 107 projects throughout the District's 16-county region resulting in more than 335 million gallons of alternative water created a day. Grant awards totaling $6 million were approved by the District's Governing Board in November for 2005. These projects will collectively create another 66 million gallons of water a day when completed. Here are some examples of innovative projects:***

### Tohopekaliga Water Authority of Osceola County Stormwater Treatment and Reuse Facilities Project

The Tohopekaliga Water Authority of Osceola County is constructing a stormwater collection and treatment system to enhance the utility's existing reuse water system. Available stormwater will be withdrawn from Shingle Creek and piped to the nearby South Bermuda Water Reclamation Facility for treatment. The authority's existing reclaimed water system provides an average of more than 13 million gallons per day of highly treated water for irrigation of landscaping and power generation in the City of Kissimmee area. The collected stormwater will be added to the reclaimed water system to improve reliability during droughts, allow expansion to meet customers' irrigation needs and to provide water to recharge the Floridan Aquifer near Champions Gate. The net result will provide an additional 4 million gallons a day of drinking water from the Floridan Aquifer.

"The District's Alternative Water Supply Grant program has assisted us in developing innovative ways of meeting the needs of our growing community while protecting the long-term viability of our primary water source – the Floridan Aquifer," said Brian Wheeler, executive director of the Tohopekaliga Water Authority of Osceola County.

### City of Miami Beach Miami Beach Golf Club (formerly Bayshore Golf Course) Irrigation of Salt-Tolerant Turf

As part of the Miami Beach Golf Club renovation in 2002, the golf course turf grass was changed to a species tolerant of brackish water called seashore paspalum. Irrigating with brackish water from the lakes within the golf course instead of the city's drinking water saves approximately 350,000 gallons of potable fresh water per day. And this innovative alternative water supply system is "green" in other ways: Bugs and weeds hate the new salty turf, requiring less herbicides and pesticides.

"Golf courses are one of the major water consuming facilities," said Kevin Smith, Director of Parks for the City of Miami Beach. "As we were getting ready to renovate, we were looking for various options that were not only environmentally friendly and long-term, but also how it impacted the bottom line. We are the first municipality using the turf."

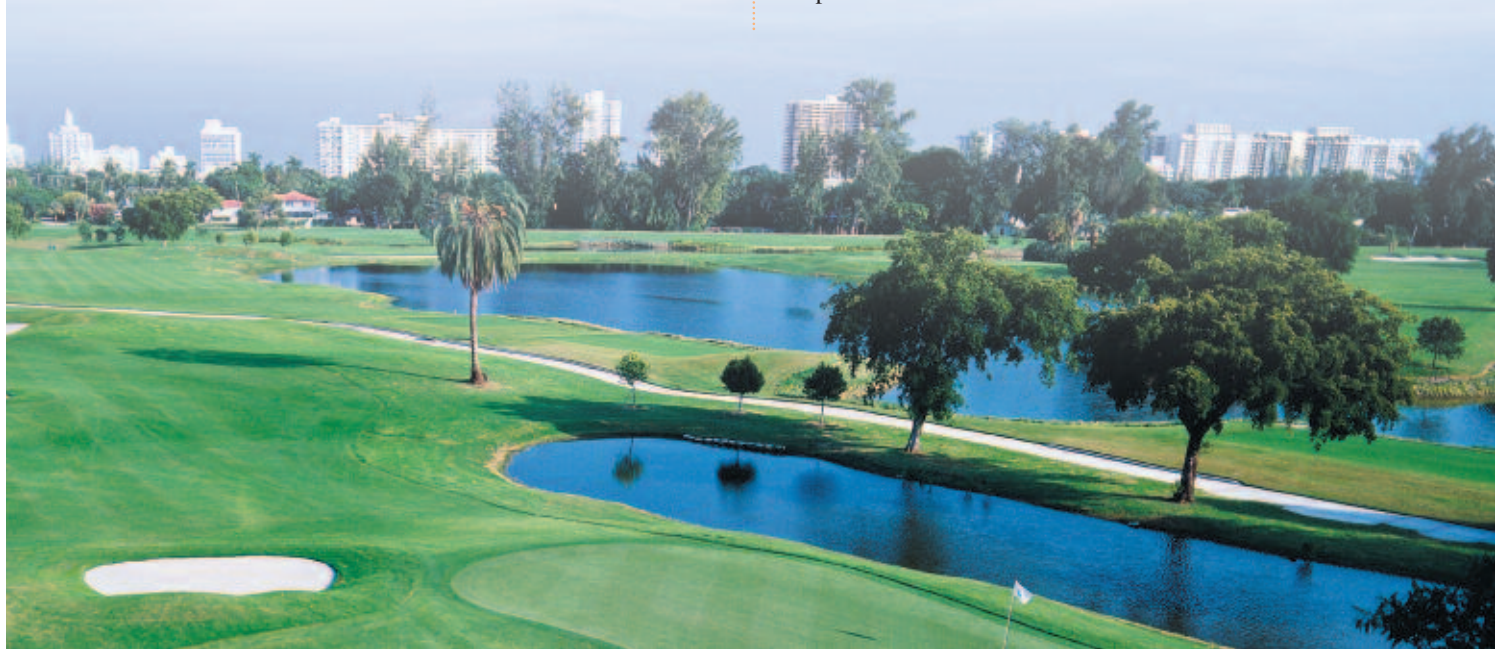
### City of West Palm Beach Wetlands Based Water Reclamation Project

This innovative and unique project involves building an indirect potable reuse plant – the first of its kind in Florida – providing advanced treatment of reclaimed water from the East Central Regional Wastewater Treatment Plant. The highly treated water, which meets nutrient removal levels greater than advanced wastewater treatment standards, will then be used to restore 2,000 acres of degraded city-owned wetlands, augment surface water supplies and boost groundwater recharge to the city's potable water well fields. Substantially complete and scheduled to be fully operational by early 2005, this facility will create 10 million gallons of alternative water per day.

"Without the help of the District's Alternative Water Supply Grant Program, we wouldn't have been able to do this project ourselves," said Ken Rearden, Director of Utilities for the City of West Palm Beach. "The project not only protects our water supply while benefiting the environment, it benefits our city's citizens because of its overall cost-effectiveness."

### Martin County Utilities Tropical Farms Reverse Osmosis Treatment Plant Expansion

In Martin County, withdrawals from the shallow, freshwater Surficial Aquifer – the traditional source of water for the region's urban potable and irrigation water needs – are limited due to potential harmful impacts on wetlands and vulnerability to saltwater intrusion. In an effort to protect the fragile environment, Martin County Utilities built deeper, brackish Floridan Aquifer wells in the 1980s and a reverse osmosis (RO) treatment facility in the north county area to meet growing demands. The county is expanding its reverse osmosis efforts by constructing a new 4 million gallons per day facility in the Tropical Farms area to service its south county service area. This 2005 grant project will expand the RO capacity at Tropical Farms by 2 million gallons per day for a total of 6 million gallons per day of RO capacity. The new facility will provide potable water to Martin Downs, freeing up 2 million gallons per day of fresh water from the Surficial Aquifer currently used at that location for potable water supply. The 2 million gallons per day expansion is scheduled for completion in mid-2006.



*Miami Beach Golf Club's water-saving, salt-tolerant turfgrass saves approximately 350,000 gallons of fresh water a day by using the brackish water drawn from the course's lakes for irrigation.*

*Photo courtesy City of Miami Beach.*